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THE OUTCOMES OF PERCUTANEOUS STENTING OF PATIENTS WITH CAROTID ARTERY STENOSIS AND NECK RADIATION

i2 Poster Contributions
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Background: We report the outcomes of percutaneous stenting of carotid artery stenosis in patients with previous neck radiation.

Methods: We retrospectively reviewed patient medical records at our institution from January 1998 through May 2010 to determine baseline characteristics, procedural details and follow up data of patients who underwent stenting of radiation induced carotid artery stenosis.

Results: Our study included total 70 patients with a total of 83 procedures. 47 patients were male (67%), and mean age was 66.3 ± 10.6 years. Mean follow-up was 47.5 months (range from 1 to 155 months). All patients had history of previous radiotherapy to neck area with laryngeal cancer being the most common reason. Furthermore, 41 patients (58.5%) had previous neck surgery due to malignancies. Embolic protection device was used in 61 (73%) procedures. The anatomic locations of procedures are presented in Table 1. During follow up period 5 (6%) ipsilateral and total 10 (12.0%) ischemic events were observed. Except 1 intraprocedural stroke (1.2%), there was no other ischemic event in thirty days and 1 year after the procedure. The mortality was 4.8% at first 30 days, 8.6% at first year and 60% at the end of the study. Freedom from stenosis was 97.6% at 1 year with additional 9 patients (8.4%) developing restenosis with average duration of 27.8 months after stenting.

Conclusion: Stenting should be considered as an important treatment option for patients with severe carotid stenosis and neck radiation.

Table 1: Anatomic locations of the procedures.

Stented artery	n=83 (%)
Right internal carotid artery	36 (43.4)
Right internal carotid artery + Right common carotid artery	2 (2.4)
Right common carotid artery	7(8.5)
Left internal carotid artery	20 (24.0)
Left internal carotid artery + Left common carotid artery	7 (8.5)
Left internal carotid artery + Right common carotid artery	1(1.2)
Left common carotid artery	10 (12.0)